Meeting November 2005

November 3, 2005 Meeting with Bill Atwood, Eric Charles, Heather Kelly, Steve Ritz

While we were all at SLAC, we had a meeting concerning the work to be done on the ACD software.

The priorities where assigned are: H = High, M = Medium, L = Low.

Geometry

Activity	Description	Priority	Status
Overlaps	Crown. This also include overlaps of side tiles, which is dependent on shingling	M	
Screws	The description for screws is already available, needs more testing	L	
Curved top tiles	As agreed with ACD team, this will be implemented as an extra squared off piece	M	
Shingling	Probably the most difficult update to the model	M	
Check side tile edge wrt Si	Should talk to Leon	H	
As Built Gaps	Is this possible before positon maps are available?	H	
Blanket-MMS	Dave Thompson has provided up to date details	H	
flexures	Need to consult with Alex to see if this is important		
weighing support material	need to consult with Alex to see if this is important		
BEA	need to consult with Alex to see if this is important		

Joanne will not be available to help with geometry updates at least until after January.
Eric stated that by the end of January, he would be able to provide position maps of the detectors and gaps.

Digitization

Activity	Description	Priority	Status
Ribbon Attenuation	Alex has provided mean PE per MIP based on position along ribbon.	L	
Fiber Attenuation	Alex provided a table before the AcdGeo simulations.	H	DONE
Check/Improve Edge Effects		H	
Noise	Check the current std deviations		
Overlays	what is this???		
"Hit map" vs "Accept map"			
Range			
Left&Right Factor of 2 Check	A quick fix was inserted in the code to fix the factor of two, need to check to be sure there are no further instances.	H	
CNO	Check handling from beginning to end.		
readout limitations	i.e. an event causes 89 tiles to fire, but only 10 are read out - need to check to see what the default is		

After some discussion, it was decided not to explicitly model pedestals in the MC simulation.

Reconstruction

Activity	Description	Priority	Status
Use of PHA	Calculating reconstructed ACD energy per tile	H	
New Variables in merit	Introduce Eric's new TkrIntersect Quantities into the ntuple, they are in full recon.	h High, but Bill doesn't want to hold up DC2 for them.	
Normalize Energy Deposition by Angle		M	
Distances in tracking sigmas	Eric's new TkrIntersect code using the propagator should make this easy	M	
AcdMaxTileE	Variable used by Steve to help eliminate S/C events.	H	
Store both MC Enery dep AND Recon Energy	Currently only MC Energy Deposited is stored.	H	
Angle beween recon track and tile plane	Requested by Alex.	H	Done. Pathlength through tile is stored in TkrIntersect
Store X,Y of Active Distance	Requested by Alex	H	Done. TkrIntersect provides Global X, Y position